Case No. 5:14-cv-05344-BLF (NC)

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I. INTRODUCTION

Cisco filed this suit based upon 26 copyright registrations relating to multiple versions and families of operating systems it offered on its products over a period of almost 20 years. The typical copyright plaintiff would embrace its copyrighted work and feature it prominently in its presentation to the jury. Cisco, on the other hand, does not want the jury even to see its operating systems. Instead Cisco wants the jury to believe that the world of network development begins and ends with the simple two-to-five word strings that network engineers have used for decades to configure most network equipment, known as CLI commands.

Cisco would have the jury believe that so long as there are commonalities between the words and phrases that its network devices recognize and those that Arista's recognize, there is copyright infringement. Copyright does not bestow upon the holder this right, however. And the facts will demonstrate that it is not copyright infringement—and is entirely fair—for Arista to build switches that understand some of the common elements of a networking language widely used by most companies. To hold otherwise would convey upon Cisco a stranglehold on competition that is unrelated to the purpose or scope of the copyright it received. This is borne out by the fact that Cisco, its competitors, its customers, and Arista very openly described their shared CLI elements as an industry standard for years, and Cisco never suggested to these market participants that those CLI elements were its exclusive property.

Arista will prove that it designed, built and continues to improve a remarkable, innovative Ethernet switch that has changed the way its customers are able to manage data and deliver services to the world. Those switches' recognition of CLI language that is common throughout the industry had no meaningful effect on Cisco's ability or inability to compete with Arista. For the first time in over a decade, Cisco faces a real competitive threat in one of its core markets, but that threat has come from Arista's ability to deliver innovative features and performance that no other competitor can.

II. FACTUAL BACKGROUND

In 2004, technology-industry pioneers Andy Bechtolsheim and David Cheriton, a

Professor of computer science at Stanford, teamed up with Ken Duda and founded Arastra Networks (later to become Arista Networks) to apply their novel ideas about software and hardware design to the evolving needs of networking. For too long, advances in networking equipment had been incremental at best, characterized by patches and fixes to old software hobbled by outdated architecture. Mr. Bechtolsheim, who co-founded Sun Microsystems, had previously worked with software expert Mr. Duda in launching Granite Systems, which built one of the first Gigabit Ethernet switches before Cisco bought the company in 1996. Mr. Bechtolsheim assembled a world-class team, and put Mr. Duda at the helm of software development to bring their ideas to fruition.

After years of development, Arista launched its first Ethernet switch in 2008 and took the networking world by storm. As the accolades flowed in, some of the most sophisticated consumers of networking equipment—such as Google and Microsoft, among many others—came to learn that Arista offered performance and features unmatched by its competitors. Cisco, who had been the dominant network equipment vendor for over a decade, could not come close. With its groundbreaking technology, Arista forever changed how data networks operate, and how network equipment vendors design and develop new products.

Arista's hardware and software deliberately broke from legacy designs in order to meet the demands of the growing market of cloud computing. Arista's switches offer extremely reliable and stable performance, dramatically lower power consumption, faster switching and fully customizable features. Arista's software was custom developed with these performance goals in mind. Most of the software was written from scratch, and the remainder consists of open source Linux code and proprietary code that Arista purchased. Cisco makes no claim of any source code copying.

But like most of the industry, for conventional functionality defined by industry standards and protocols, Arista caused its switches to recognize a command language that operators had come to know and use with many different vendors' devices. This common language was largely comprised of the industry-standard acronyms, protocol names and parameters themselves. Those public domain sources were combined with conventional industry usage and syntax that Cisco's

early engineers borrowed from pre-existing operating systems. Cisco—which held upwards of 80% market share in various networking markets over the past two decades—and most of the rest of the industry referred to this common language as the "industry standard CLI."

Since at least the late 1990s, many companies openly promoted their products as interoperable with the Cisco CLI, touting their CLIs as "industry standard" or "Cisco-like," and assuring customers that they would not need to learn a new command language. Cisco knew of these claims, and of the widespread emulation of its CLI across the industry, and yet Cisco never complained or took action to stop them. On the contrary, Cisco itself marketed its command set as an "industry standard CLI." The only objection Cisco ever raised to another company's use of similarities in the user interface was a lawsuit it filed against Huawei in 2003 after it discovered that Huawei had misappropriated large portions of proprietary Cisco source code. But Cisco never complained about the many other companies who, unlike Huawei, did not use Cisco's source code but built equipment that also responded to the industry standard CLI commands. As to Arista, Cisco knew that Arista's switches recognized the same industry-standard CLI for more than six years but never registered any complaint whatsoever before filing this lawsuit. Instead, Cisco tried for many years to compete on the merits and catch up to Arista's performance, all without success.

Thanks to its innovative technology, Arista's success has exceeded even its own expectations, which shows that it is satisfying the unmet needs of sophisticated data center customers. Arista first gained a foothold among high performance computing research labs and financial customers where consistent, extremely fast switching was virtually the only important product characteristic. It then quickly expanded to the broader cloud data center market. While every customer's needs are different, these sophisticated customers were attracted to Arista's lightning-fast, high capacity and highly power-efficient hardware design, and stable, programmable operating system. These and other features allowed some of the largest operators of cloud data centers to arrange, operate and manage servers on a scale never before attainable, and yet at lower costs.

These customers did not buy Arista switches because the switches recognized the same

command language used by most of the networking industry. Indeed, many of these customers use automated tools that they write themselves, which supersede the CLI. Years ago (and even today for certain segments of the switching market) customers clamored for an "industry standard" or Cisco-like CLI so that their network engineers would not cause failures by accidentally misconfiguring a switch that used an unfamiliar language. But operators of cloud networks face network management tasks at such a massively larger scale that having a network engineer type in commands to configure a single switch is impractical. These customers either use their own configuration tools or Arista's automated management tools that do not rely upon engineers' familiarity with the CLI. In short, Arista's financial success and market share cannot be attributable to its use of a common command language.

For any asserted registered Cisco operating system, the command-line interface forms only a tiny part, and in no way drives customer demand. Because Cisco asserts in this case only a small, cherry-picked fraction of each asserted work's CLI elements, the purported "expression" at issue here has little connection with the losses of market share Cisco has recently suffered due to its own failure to innovate.

III. FACTUAL AND LEGAL ISSUES

A. Cisco will not be able to prove infringement of any of its copyrighted works.

The elements of its interface that Cisco claims Arista copied here are not protectable under its copyrights, and Cisco will fail to prove that Arista has infringed any Cisco copyright. As discussed in separate briefing, and as the evidence will show at trial, the CLI elements Cisco asserts here are functional, unoriginal, and unprotectable. The accused similarities are the result of following the practical and technical constraints of the networking industry. Moreover, the similarities are trivial in relation to Cisco's actual registered works, and to its actual user interface manifested by each of those works. In addition, Cisco cannot prove infringement because the supposed "selections" and "arrangements" of interface elements that it claims Arista copied have no basis in Cisco's actual works: they were made up for this litigation, and cannot support an infringement claim. Under either a virtual identity or substantial similarity standard, Cisco cannot sustain its infringement claims based on a proper comparison of Cisco's and Arista's works as a

whole.

Cisco's claims that Arista infringed Cisco's technical user documentation will also fail.

First, Cisco seeks to assert against Arista tiny snippets from many manuals —chosen purely by what Cisco claims Arista copied, rather than any actual creative or original aspect of the manuals. Also, many of the manual snippets simply describe technical functions and features, and recite commands and parameters, that are themselves unprotectable. The amount of claimed copying for each of the asserted manuals is also trivial, and such *de minimis* similarities cannot support an infringement claim.

B. Cisco will not defeat Arista's showing of fair use.

Arista's implementation of a user interface that recognized conventional and widely-used commands to configure and manage its original high-speed Ethernet switches was fair use. Aimed at serving a different and growing market segment, Arista designed the software and hardware from scratch to achieve performance no competitor could match. Meanwhile, there is overwhelming evidence of broad usage across the industry of the small portion of words, concepts, and CLI features Cisco now claims copyright in, which Cisco and the rest of the industry described as "industry standard." Arista's use of these features was both reasonable and transformative, implementing only a small fraction of an entirely functional and widely-used body of commands, modes, prompts, and other CLI elements, without causing Cisco any perceptible market harm.

The evidence will show that all of the fair use factors favor Arista in this case.

First, the purpose and character of the use is transformative. Arista will establish that EOS is both architecturally and operationally different from IOS, and designed for different market segments such as financial and cloud computing customers. Arista's EOS was also written in a different programming language from Cisco's operating system. Arista has built a number of innovative product features that set it apart from Cisco, including a largely unaltered Linux kernel, a publish/subscribe model of controlling the state of different operating system

At the September 9, 2016 *Daubert* hearing, counsel for Cisco confirmed that source codecopying is not at issue in this case. *See* Hr'g Tr., Sept. 9, 2016, 45:11-13.

agents, a modular agent architecture, LANZ (Latency Analyzer), ZTP (Zero Touch Provisioning), VM Tracer, and eAPI. Arista's EOS—and by extension the CLI—runs on vastly different hardware, whose innovative features were optimized and enhanced by Arista's software engineers. And while there is some overlap between Arista's and Cisco's customers, Arista's products are specifically designed for and geared at software-driven cloud networking in large data center and computing environments. Even Cisco's own engineers have acknowledged that Arista's products are different in character and operate in a different context.

Second, the interface features at issue are purely factual and functional in nature. CLI commands, including those asserted in this case, exist only to perform a function in a networking device—as their name suggests, they "command" the system to perform a particular operation.

Rather than adopt absurd or fanciful names for its commands—which would drastically increase the risk of human error—Cisco, like the rest of the industry, relied on well-known, intuitive networking terminology for its CLI commands as a matter of formal policy and practice. This included unprotectable industry-standard terms² and common command words (e.g., "show" and "clear") that pre-date Cisco's formation. These common and standardized terms also appear in the help strings implicated in this case, as well as command responses, for purposes of conveying factual information to the user. Taken together, the evidence will show that the CLI commands, command responses, and help strings implicated in this action were designed to adapt to technical constraints, avoid confusion, and promote interoperability. Quite the opposite of a novel or a poem, they serve no expressive or creative purpose, and aim to use terminology that network engineers already know and use.

Third, the asserted commands are only a miniscule portion of the commands available in each of the 26 registered operating system's interface (and also a miniscule portion of Arista's own set of commands), and an even smaller portion of the registered works themselves. Of the 13,243 commands used by Arista's EOS, Cisco has only accused Arista of copying fewer than 500 commands. Those asserted commands comprise less than four percent of the over 15,000

² Such terms are defined and/or used in formal industry standards adopted by IEEE and IETF, as well as other standards-related documents.

commands used in some versions of Cisco's IOS operating system (just one of four separate types of Cisco operating systems, each asserted here in several distinct versions). Arista will also present evidence showing that Cisco has asserted a small fraction of its approximately seventy modes and prompts in the IOS interface and even fewer of its command responses, which number in the tens of thousands. Less than one percent of the unique "help texts" in the IOS operating system are at issue in this litigation. Ultimately, evidence of the widespread, unlicensed use of overlapping CLI modes, prompts, hierarchies, commands, and command responses by networking vendors and major Cisco competitors—and Cisco's knowledge of this widespread use, and encouragement of it—undercuts any assertion that such interface features constitute the heart and soul of any of Cisco's twenty-six asserted registered operating systems. Arista only used a tiny fraction of any of Cisco's registered works—that which was reasonable and necessary to support and maintain interoperability within the industry.

Finally, Arista's use of common CLI elements has had no observable market effect or impact on the value of any of Cisco's registered works. Arista will prove that its increase in market share is attributable to its superior product features, not the CLI. The market's needs are evolving beyond a common or familiar CLI, demanding the type of innovative features that Arista has pioneered and Cisco has failed to deliver. Customers, industry analysts, and Cisco itself have all acknowledged Cisco's various shortcomings, from its lagging product features to its outdated business model. Correspondingly, none of the available market data evidences any relationship between use of a Cisco-like CLI and increase in market share over time to Cisco's detriment. The asserted features of the interfaces of Cisco's twenty-six registered operating systems are part of a widely supported CLI that has been openly used by Cisco's competitors for over fifteen years without any notable effect on Cisco's market share. Cisco's competitors actively marketed their CLIs as "industry standard" and "Cisco-like" years before Arista even existed. Despite the longterm, widespread usage of interface features shared with Cisco's twenty-six asserted operating system interfaces, no other competitor besides Arista has made a significant dent in Cisco's hold on the market. The evidence will conclusively show that any struggles that Cisco has experienced in the market for Ethernet switches are a result of its own failure to innovate, not

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Arista's use of a common CLI language.

In sum, Arista will establish that a reasonable copyright holder would deem its use of the asserted interface features to be fair use based on the industry's custom and practice and as a matter of public policy. Cisco consented to the industry's use of the same interface features for decades, repeatedly describing the CLI publicly and privately as an industry standard. The widespread adoption of a common CLI served vendors and customers alike by promoting interoperability and network stability, thereby allowing resources on both ends to be redirected towards more productive innovations. Customers in particular have been able to avoid the cost of retraining their engineers to use multiple CLIs corresponding to different vendors. These benefits were touted in sales and marketing materials by Cisco and its competitors. In turn, Cisco capitalized by projecting an image as a market leader and being able to assure customers that they would not be locked in after purchasing its products. Evidence of the widespread adoption of the asserted CLI modes, prompts, hierarchies, commands, and command responses across the networking industry, along with the corresponding benefits, will further validate Arista's selective use of those features as entirely reasonable and within the scope of fair use.

C. Arista will prove that Cisco has misused its copyrights, which it had also previously waived and abandoned, and is estopped from enforcing them.

Arista will also prove at trial that Cisco has no right to enforce any copyright in the asserted interface of any of its registered works, which Cisco first abandoned and waived, but now seeks to misuse to gain an unfair competitive advantage against Arista.

First, long before beginning its current anticompetitive campaign, Cisco had waived and abandoned its rights to any copyright protection for the asserted elements of the interface of its asserted works. The evidence will show that Cisco abandoned its rights because for many years before this litigation, Cisco's actions demonstrated an intent to surrender any rights in these elements of its interfaces. Cisco's actions also showed its intent to waive any copyright claims in these interface elements against Arista in particular. Cisco touted its interface as the industry

³ See 4-13 Nimmer on Copyright § 13.06.

⁴ Qualcomm Inc. v. Broadcom Corp., 548 F.3d 1004, 1019-1020 (Fed. Cir. 2008); U.S. v. King Features Entm't, Inc., 843 F.2d 394, 399 (9th Cir. 1988).

standard, with full knowledge that it was used throughout the industry, and for more than a decade raised no objection to Arista and many other vendors using the elements it now claims are protected by copyright. Under the circumstances, Cisco's actions amounted to both a waiver and an abandonment of any purported proprietary rights to the commands and other CLI features it now seeks to assert against Arista.

Second, Cisco has misused its copyrights for anticompetitive purposes and is therefore barred from enforcing them while that misuse continues. Arista will prevail on its affirmative defense of copyright misuse because Cisco has attempted to use the existence of its copyrights and its dominant position in the market to prevent competitors like Arista from using unprotected elements of the copyrighted works, or to prevent Arista from undertaking activity safeguarded by public policy, such as the policies supporting fair use. Cisco now hopes to achieve the very lockin it assured customers they would not suffer, denying market segments access to newer and better technology that Cisco can't deliver. To do so, it has claimed exclusivity in a common command language, comprised mostly of pre-existing industry standard terminology, that Cisco and the rest of the industry have long recognized as being available for all to use to protect interoperability and fair competition. Cisco's actions constitute copyright misuse. Enforcement of a copyright is barred where a plaintiff has engaged in such conduct, for as long as the misuse continues.

Finally, much of the evidence presented at trial will also support Arista's equitable defenses to be tried to the Court in January, including equitable estoppel, laches, and unclean hands. In particular, Cisco's persistent touting of its "industry standard CLI" and long-standing, open acceptance of similar features' widespread use throughout the industry entitled Arista to rely on Cisco's conduct, which Arista did by using some of those features in its own products. It would be inequitable and prejudicial to Arista to allow Cisco to reverse course now (after

See, e.g., Alcatel USA, Inc. v. DGI Techs., Inc., 166 F.3d 772, 793-795 (5th Cir. 1999) (affirming jury verdict of copyright misuse where plaintiff misused its copyright in its operating system to prevent competitor from making expansion cards for telephone switches, which necessarily entailed copying the operating system).

⁶ Practice Mgmt. Info. Corp. v. Am. Med. Ass'n, 121 F.3d 516, 520 (9th Cir. 1997), amended, 133 F.3d 1140 (9th Cir. 1998).

remaining silent for years while Arista built a hugely successful business) and claim ownership in interface features that not only are unprotectable under Cisco's copyrights and the doctrine of fair use, but that Cisco long since dedicated to the public domain. Both equitable estoppel and the doctrine of laches bar Cisco's claims. Cisco's own use of interface features borrowed from other systems (and even others' source code) underscores the injustice of Cisco's claims against Arista, and will also support Arista's unclean hands defense.

D. Arista Does Not Infringe the '526 Patent

Cisco included the '526 patent in this case to prevent the Ninth Circuit from reviewing Cisco's copyright claim. The patent is directed to a particular method of parsing "generic commands" that Arista does not use.

Claims 1 and 14 of the patent are at issue. The Court has construed both claims to require a hierarchical data structure "having elements, such that each element specifies at least one command action value for each generic command component." Arista's products have no such data structure, as they work in a fundamentally different way from what the patent claims, akin to the prior-art parsers that Cisco distinguished. Unlike the '526 patent, therefore—which is purportedly inventive because of its ability to execute partially valid commands—Arista's parser executes a command only if it determines that the command is complete and valid.

As Arista's expert Dr. Jeffrey Chase will explain at trial, Arista's parser also fails to satisfy several other asserted claim limitations. The '526 patent was shoehorned into the case for tactical reasons and is a poor fit for Arista's products.

E. Even if it could prove liability, Cisco would not be entitled to damages anywhere near its inflated demand.

1. Copyright damages.

Arista will also prove at trial that, if Cisco could prove liability, it would be entitled to total damages of approximately \$18.5 million. Cisco's attempt to lay claim to more than \$500 million in damages—including up to \$455 million in disgorgement and up to \$335 million in lost-

Even if Cisco were to prevail on both its copyright and patent claims, it would not be entitled to injunctive relief. Arista reserves the right to submit further briefing on injunctive relief at a later date, if necessary.

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Disgorgement is an equitable issue to be decided by the Court. See Petrella v. Metro-Goldwyn-Mayer, Inc., 134 S. Ct. 1962, 1967 n.1 (2014); see also ECF 537. If the Court awards disgorgement (which it should not do), it must apportion Arista's profits to determine the amount attributable to the CLI elements found to infringe Cisco's copyrights versus the amount attributable to all of the other groundbreaking software and hardware features of Arista's switches, which far eclipse the accused CLI elements in value and importance. See Cream Records, Inc. v. Jos. Schlitz Brewing Co., 754 F.2d 826, 828-29 (9th Cir. 1985) ("In cases such as this where an infringer's profits are not entirely due to the infringement, and the evidence suggests some division which may rationally be used as a springboard it is the duty of the court to make some apportionment.") (emphasis added).

Arista's expert, Cate Elsten, has analyzed large amounts of data and evidence, made numerous assumptions favorable to Cisco, and determined that Arista would owe, at most, approximately \$16.4 million in disgorgement. Cisco's expert, Dr. Judith Chevalier, has offered two apportionment models that ignore or mischaracterize the evidence and overstate the disgorgement owed to Cisco as either \$57 million or \$48 million. (The difference between the two is the amount of R&D expenses that Arista is entitled to deduct.) Moreover, Cisco has improperly ballooned its disgorgement claim even further by seeking an alternative "no apportionment" disgorgement award of up to \$455 million—\$400 million more than even its own inflated apportionment figure. In so doing, Cisco invites the Court to commit clear error because its "no apportionment" demand violates Ninth Circuit law, which requires the Court to apportion.

Cisco has also vastly overstated the importance of the CLI to calculate the profits it allegedly lost due to Arista's use of the asserted CLI elements. Cisco's expert Dr. Chevalier presents three alternative "scenarios" for calculating lost profits, which differ from each other by

The law requires actual damages and disgorgement to be netted against each other so that the plaintiff doesn't receive a double recovery. Accordingly, the highest total copyright damages award that Cisco seeks is \$523 million.

a factor of over 700%, or hundreds of millions of dollars—itself demonstrating the speculative and concocted nature of Cisco's claim. *See Mackie v. Rieser*, 296 F.3d 909, 915 (9th Cir. 2002), *cert. denied*, 537 U.S. 1189 (2003) (quotations omitted) (Courts must "reject a proffered measure of damages if it is too speculative."). In her Scenario 1, Dr. Chevalier asserts that lost profits total between \$43 and \$46 million. In Scenario 2, she asserts that lost profits total between \$153 million to \$165 million. And in Scenario 3, which involves no analysis of customer data and no application of any purported expertise, she asserts that lost profits total between \$310 million to \$334 million.

Arista's expert Ms. Elsten will explain that Dr. Chevalier concocted these figures using a

Arista's expert Ms. Elsten will explain that Dr. Chevalier concocted these figures using a deeply flawed methodology through which she concluded that customers would not purchase Arista switches without a Cisco-like CLI despite explicit statements by those customers that they based their purchase decisions on other factors and did not care whether the CLI resembled Cisco's. The evidence will show that Cisco lost sales not because Arista used a CLI that resembled the one used by most of the industry, but because Cisco stopped innovating and drove customers away with frequent outages and bad customer service. Accordingly, Ms. Elsten will show that the most that Cisco can prove in lost in profits is approximately \$2.1 million.

2. Patent damages.

Cisco acknowledges that, even if it could prove infringement of the '526 patent, Arista could readily design around the patent. Cisco estimates the cost of doing so—representing the cap on patent damages that Arista would owe—as up to \$2.2 million. But that figure vastly overstates the realistic design-around cost. The evidence will show that the actual cost would be in the low six figures at most. Thus, that amount is the most that Cisco could prove in damages.

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